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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/939,624 | 08/28/2001 | Robin U. Roberts | 42092 | 4515 |

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| EXAMINER | |
|---|---|
| GENACK, MATTHEW W | |
| ART UNIT | PAPER NUMBER |
| 2645 | |

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/939,624 | ROBERTS, ROBIN U. | |
| | Examiner | Art Unit | |
| | Matthew W. Genack | 2645 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 January 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Larsen *et. al.*, U.S. Patent No. 6,810,428.

Regarding Claims 1, 6, 8, 11, 15, 19, 21, 24, 27, 31, 33, and 36, Larsen *et. al.* discloses a wireless communications network comprised of multiple mobile terminals, along with a method of operating such a network (Abstract, Column 1 Lines 30-35, Fig. 1). The user terminals comprise transceivers (which, by inherency, are controlled, either directly or indirectly, by computer readable instructions) that are able to transmit wireless communications data to destination user terminals or receive wireless communications data from destination user terminals by way of intermediate user terminals in the same network (Column 4 Lines 34-37 and 51-63, Column 5 Lines 4-9, Fig. 1). The user terminals comprise controllers that are able to allow or prevent the transmission of said wireless communications data based on routing data related to the powers required for transmission, powers available for transmission, and the potential levels of interference between neighboring user terminals (Abstract, Column 1 Lines 40-

45 and 64-66, Column 2 Lines 15-38, Column 4 Line 65 to Column 5 Line 3, Column 16 Lines 53-61, Column 25 Lines 26-35).

Regarding Claims 2-3, 16-17, and 28-29, Larsen *et. al.* discloses the presence of RAM inside of the user terminals, said RAM storing information related to the routing of data, based on power level considerations, through the network, said information being received from the infrastructure of the network as well as other user terminals of the network (Column 25 Lines 51-65, Column 26 Lines 46-58, Column 27 Lines 15-20).

Regarding Claims 4, 5, 12, 18, 25, 30, and 37, Larsen *et. al.* discloses that routing data (Gradient Messages in this case) may indicate the scenario whereby several user terminals are either turned off or moving at the same time (Column 16 Lines 9-26).

Regarding Claims 7, 14, 20, 26, 32, and 38, Larsen *et. al.* discloses that the wireless communications network processes packet data (Column 5 Lines 48-54, Column 6 Lines 61-67).

Regarding Claims 9-10, 22-23, and 34-35, Larsen *et. al.* discloses that commands may be issued, by the user, to the user terminal in order to direct said user terminal to transmit data (Column 19 Lines 6-8). Similarly, since the transceiver of a given user terminal may forward data received from one user terminal to another user terminal, it is the case that this retransmission is caused by commands received from elsewhere in the network (*e.g.*, the originating user terminal).

Regarding Claim 13, Larsen *et. al.* discloses the use of a table for use in setting power output levels for transmissions pertaining to the routing of wireless communications (Column 26 Lines 3-17).

***Response to Arguments***

3. Applicant's arguments filed 20 October 2005 have been fully considered but they are not persuasive.

Regarding Applicant's argument on Page 15 pertaining to the ability to control a station so as to not act as a router and to transmit transceiver status information, Examiner maintains that the limitation of Amended Claim 1 "a controller, adapted to prevent said transceiver from transmitting said wireless communications data to said other user terminal based on received routing data indicating that said other user terminal is prohibited from operating as a router to route said wireless communications data to said destination terminal" is met by "Other stations receiving the probe signals respond directly or indirectly, thereby indicating both to the probing station and other stations their availability as destination or intermediate stations. The probing station evaluates the direct or indirect responses to identify other stations with which it can communicate optimally [Emphasis added]." from the Abstract of Larsen *et. al.* The probed station sends a response back to the probing station, and this response constitutes "received routing data," and the fact that this response indicates the availability (that is, whether available or not available) of the probed station as an intermediate station, constitutes an indication, to the probing station, that "said other user terminal [*e.g.*, probed station] is prohibited from operating as a router" when said

probed station is prohibited from acting as a router by circumstances, such as the distance between wireless stations at a given time, and/or an unacceptable level of interference at a given time. Independent Claims 15 and 27 recite similar limitations.

Amended Claims 8, 21, and 33 differ substantively from Amended Claims 1, 15, and 27 in that the latter Claims pertain to the prevention of transmission from the transceiver of the originating station, whereas the former Claims pertain to the prevention of transmission from the transceiver of the intermediate station. Figure 1 illustrates daisy chains of wireless stations, some daisy chains having greater than three stations (that is, two or more intermediate stations between the originating station and the destination station). In said Figure, station B is an originating station as far as station I is concerned. In this scenario, if station B probes station I and receives an indication that station I cannot act as a router, then the controller of station B will prevent the transceiver of station B from transmitting to station I (thereby preventing station B from acting as a router), for the very reasons cited above in the rejections of Claims 1, 15, and 27 (since station B is in the role of the originating station relative to station I). In this scenario, station B would then transmit status information (a response) to station A indicating that station B cannot act as a router for information intended for the ultimate destination of station O.

Regarding Applicant's arguments pertaining to Claims 9-10, 22-23, and 34-35, on page 16, Examiner maintains that the transmission of transceiver status information is in response to both to a command from the user of the mobile station (since the mobile station must be enabled by a user in order to function in the wireless network of the

invention of Larsen *et. al.*), and a command from the wireless communications network (as outlined above, a response indicating that the next station in the daisy chain cannot act as a router will cause the probing mobile station to not act as a router and to transmit information containing this fact).

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew W. Genack whose telephone number is 571-272-7541. The examiner can normally be reached on FLEX.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew Genack

Examiner

Art Unit 2645

Matthew Genack

6 January 2006

FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600